UNIVERSITY OF MARYLAND

The Commission on Presidential Debates
1200 New Hampshire Ave., NW, Suite 445
Washington, DC 20036

Dear Commission Leadership:

We write to share timely and critical advice designed to protect the health and safety of 2020's Presidential and Vice Presidential debate audiences, from candidates to production staff, based on our research on airborne transmission of Covid-19. We believe that, with a simple and affordable technical fix to the debate stage, you can increase the audience's overall safety and decrease the risk of Covid-19 transmission in the debate hall.

In a debate forum with unmasked debaters, the risk to the candidates and others is not from flying droplets expelled by speech or coughs but from aerosolized virus particles travelling in the air. Droplet spray does not easily travel twelve feet or more. Airborne particles, however, can and might reach everyone in the room.

Our research identified an inexpensive solution that can protect the participants on stage and in the audience using air filtration and airflow directed in a way that efficiently captures airborne particles. Localized filtration and well controlled airflow can provide more effective protection of the participants than a barrier.

We recently tested this system with a person singing, using simple components from a hardware store: a box fan, HEPA air filter and duct tape. We found that it reduced the particle concentration in air by 50 percent. You can view a simulation at: city.umd.edu/covid-19. While masking the singer proved the most effective means of reducing particles released from a singer, this system provides an alternative when performers cannot wear masks.

We urge you to deploy this system for the safety of all debate participants and are happy to discuss its implementation with you. Please contact Kelly Blake at kellyb@umd.edu or 443-851-0272 (with the School of Public Health) and Chris Bender at csbender@umd.edu or (240) 350-0698 (with the A. James Clark School of Engineering) who can connect us.

Sincerely,

Donald Milton, MD, DrPH
Professor of Environmental Health

Jelena Srebric, PhD
Professor of Mechanical Engineering